

CLAIMS

What is claimed is:

1. A method for forming a flexible container comprising the steps of:
 - providing a flexible, transparent front sheet;
 - providing a flexible, vapor impermeable rear sheet, the front and rear sheets sealed together at a common peripheral edge;
 - heating the front and rear sheets in a first localized area to fuse together the heated portions of the adjoining surfaces, thereby forming a first peelable seal extending between two sides of the common peripheral edge, the first peelable seal separably joining the front and rear sheets to thereby form a first compartment;
 - heating the front and rear sheets in a second localized area to fuse together the heated portions of the adjoining surfaces, thereby forming a second peelable seal extending between the two sides of the common peripheral edge, the second peelable seal separably joining the front and rear sheets to thereby form a second compartment and a third compartment, said second compartment is between the first and third compartments;
 - providing first and second sacrificial ports interposed between the front and rear sheets and in communication with the first and second compartments, respectively;
 - filling the first compartment with a first composition through a respective sacrificial port;
 - filling the second compartment with a second composition through a respective sacrificial port; and
 - completing the seal along the container's common peripheral edge and removing the sacrificial ports from the container.
2. The method according to claim 1, wherein the first and second peelable seals are formed by maintaining the heat seal temperature in the range of from 245°F to 265°F while applying a pressure in the range of from about 230 psi to about 340 psi for a time in the range of from about 1.5 seconds to about 2.5 seconds.
3. The method according to claim 1 further comprising:
 - providing an isolator having a sterile environment, the ambient atmosphere within the isolator maintained in a sterile condition, wherein the first compartment and the second compartment are aseptically filled with pre-sterilized first composition and pre-sterilized second composition in the sterile environment inside the isolator.

4. The method according to claim 3 further comprising sterilizing said container before the compartment filling step.

5. The method according to claim 4, wherein the filled container is folded-over along the first peelable seal between the first compartment and the second compartment.

6. A method for forming flexible container, the method comprising the steps of:
providing a flexible, transparent front sheet comprising a polypropylene-polyethylene co-polymer blended with styrene ethylene-butylene styrene elastomer;
providing a flexible, vapor impermeable rear sheet;
heating the front and rear sheets in a first localized area to fuse together the heated portions of the adjoining surfaces, thereby forming a permanent seal around a portion of a common peripheral edge of said front and rear sheets, the permanent seal having at least one gap therein providing a channel between said front and rear sheets; and
providing at least one sacrificial port interposed between the front and rear sheets and in communication with the channel for filling the container.

7. The method according to claim 6 further comprising the step of heating the front and rear sheets in a second localized area to fuse together the heated portions of the adjoining surfaces, thereby forming a peelable seal extending between two sides of the common peripheral edge, the peelable seal separably joining the front and rear sheets to thereby form a first compartment for containing a first component and a second compartment for containing a second component.

8. The method according to claim 7, wherein the flexible, vapor impermeable rear sheet comprises a multi-layer laminate formed by the steps of:
providing an inner layer of a polypropylene-polyethylene co-polymer blended with a styrene ethylene-butylene styrene elastomer in an about 80%/20% wt/wt ratio interfacing with the front sheet;
providing an intermediate layer of aluminum foil; and
providing an outer thermoplastic layer having a higher melting point than said inner layer.

9. The method according to claim 8, further comprising the step of providing a second sacrificial port interposed between the front and rear sheets, the at least one sacrificial

port and the second sacrificial port in communication with the first and the second compartments, respectively.

10. The method according to claim 9 further comprising the step of completing the permanent seal along the container's common peripheral edge and removing the sacrificial ports from the container, whereby container formation is completed without being subject to sterilization step after the compartment filling step.

11. The method according to claim 10, wherein said peelable seal is formed by maintaining the heat seal temperature in the range from 245 °F to 265 °F while applying a pressure in the range of from about 230 psi to about 340 psi for a time in the range from about 1.5 seconds to about 2.5 seconds.

12. A method for forming flexible container, the method comprising the steps of:
providing a flexible, transparent front sheet;
providing a flexible, vapor impermeable rear sheet;
heating the front and rear sheets in a first localized area to fuse together the heated portions of the adjoining surfaces, thereby forming a permanent seal around a portion of a common peripheral edge of said front and rear sheets, the permanent seal having at least one gap therein providing a channel between said front and rear sheets; and
providing at least one sacrificial port interposed between the front and rear sheets and in communication with the channel for aseptically filling the container.

13. The method according to claim 12 further comprising the step of heating the front and rear sheets in a second localized area to fuse together the heated portions of the adjoining surfaces, thereby forming a peelable seal extending between two sides of the common peripheral edge, the peelable seal separably joining the front and rear sheets to thereby form a first compartment for containing a first composition and a second compartment for containing a second composition.

14. The method according to claim 13, further comprising the step of providing a second sacrificial port interposed between the front and rear sheets, the at least one and second sacrificial ports in communication with the first and second compartments, respectively.

15. The method according to claim 14 further comprising the steps of:
aseptically filling the first compartment with a first composition through a respective sacrificial port; and

aseptically filling the second compartment with a second composition through a respective sacrificial port.

16. The method according to claim 15 further comprising the step of completing the permanent seal along the container's common peripheral edge and removing the sacrificial ports from the container, whereby container formation is completed without being subject to a sterilization step after the compartment filling step.

17. The method according to claim 16, further comprising the step of providing an isolator having a sterile environment, the ambient atmosphere within the isolator maintained in a sterile condition, wherein the first compartment and the second compartment are aseptically filled with pre-sterilized first composition and pre-sterilized second composition in the sterile environment inside the isolator.

18. The method according to claim 16, wherein said peelable seal is formed by maintaining the heat seal temperature in the range of from 245.degree. F. to 265.degree. F. while applying a pressure in the range of from about 230 psi to about 340 psi for a time in the range of from about 1.5 seconds to about 2.5 seconds.

19. The method according to claim 17 further comprising the step of sterilizing said container before the first aseptic compartment filling step.